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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,942	02/25/2004	Shinya Akamatsu	Q79954	9490

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EXAMINER

ZARROLI, MICHAEL C

ART UNIT PAPER NUMBER

2839

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/784,942	AKAMATSU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael C. Zarroli	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9, 11, 12, 17-19 and 26 is/are rejected.
- 7) ☒ Claim(s) 2, 10, 13-16 and 20-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/25/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first lock mechanism “**connecting** said first terminals and said second terminals” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR

1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

2. The abstract of the disclosure is objected to because of the language “adapted to.” Correction is required. See MPEP § 608.01(b).

### *Claim Objections*

3. Claim 9 objected to because of the following informalities: Line 4 on page 25 the misspelling “forth.” Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-6, 8 and, 26 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Santomango et al.

Santomango discloses an apparatus (50) adapted to make an electrical connection with a first electronic unit (DB) having a first edge portion and first terminals (132) disposed along said first edge portion, said apparatus comprising: a first supporting member (fig. 11); and a first connector (ZIF) supported by said first supporting member, said first connector having a body (104) elongated in a longitudinal direction (fig. 8) and second terminals (106) disposed along said longitudinal direction, wherein said first connector is adapted to slidably guide (fig. 12) said first edge portion of said first electronic unit along said longitudinal direction (fig. 12 arrow) to a first fully inserted position (figures 3 or 11) such that each one of said first terminals faces respective one said second terminals.

Regarding claim 3 Santomango discloses that said supporting member includes a circuit board (fig. 2 at MB).

Regarding claim 4 Santomango discloses that a direction of a cooling airflow (fig. 3 at 10 o'clock into cabinet) is substantially parallel to said longitudinal direction of said first connector (figures 3 and 4).

Regarding claim 5 Santomango discloses that a housing (20) having a front portion, a rear portion and a front opening (fig. 3) in said front portion, wherein said first supporting member and said first connector are arranged between said front portion and said rear portion of said housing (fig. 4).

Regarding claim 6 Santomango discloses that said longitudinal direction of said first connector is substantially parallel to a direction from said front portion to said rear portion of said housing (fig. 4).

Regarding claim 8 Santomango discloses that said first supporting member is substantially perpendicular to said front portion of said housing (fig. 4).

Regarding claim 26 Santomango discloses that said first electronic unit is connected to said first connector (fig. 11).

6. Claims 1, 9, 11-12 and, 17-19 rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yamamoto et al.

Yamamoto discloses an apparatus adapted to make an electrical connection with a first electronic unit (16) having a first edge portion (17-1) and first terminals disposed along said first edge portion (fig. 1), said apparatus comprising: a first supporting member (13 & 14); and a first connector (15) supported by said first supporting member, said first connector having a body elongated in a longitudinal direction (fig. 3) and second terminals (22) disposed along said longitudinal direction, wherein said first connector is adapted to slidably guide (fig. 1 A & B arrows) said first edge portion of said first electronic unit along said longitudinal direction to a first fully inserted position (fig.3 shows various 16 fully inserted)

such that each one of said first terminals faces respective one said second terminals (figures 2A & 2B).

Regarding claim 9 Yamamoto discloses that said first electronic unit further has a second edge portion (17-3) substantially parallel and opposite to said first edge portion (17-1) and forth (sic fourth) terminals disposed along said second edge portion (fig. 1), said apparatus further includes a second supporting member (13-1, 13-4 & 14-3) and a second connector (15-3); said second connector has a body elongated in a longitudinal direction and third terminals disposed along said longitudinal direction (figures 2A & 2B) of said second connector, said second connector is supported by said second supporting member and arranged substantially parallel and opposite to said first connector (figures 1 & 3), and said second connector is adapted to slidably guide said second edge portion of said first electronic unit along said longitudinal direction of said second connector to said first fully inserted position such that each one said third terminals faces respective one of said forth terminals (fig.1 at arrows A & B).

Regarding claim 11 Yamamoto discloses that each of said first supporting member and said second supporting member includes a circuit board (14-1, 14-3).

Regarding claim 12 Yamamoto discloses that a direction of cooling airflow (fig. 1 lower right to upper left) is substantially parallel to said longitudinal direction of said first connector.

Regarding claim 17 Yamamoto discloses that said first supporting member and said second supporting member are adapted to be electrically connected through said first electronic unit (fig. 1 shows electronic unit between connectors).

Regarding claim 18 Yamamoto discloses that said first and second supporting members are parallel wherein to each other (fig. 3 and 14-1 & 14-3).

Regarding claim 19 Yamamoto discloses that said first and second connectors are adapted to support said first electronic unit such that said first electronic unit is substantially perpendicular to said first and second supporting members (figures 1 or 3).

### ***Claim Rejections - 35 USC § 103***

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor



and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Santomango et al as applied to claim 7 above, and further in view of Blatti. Santomango does not disclose a fan.

Blatti discloses said housing further has a fan (97) providing a cooling air flow in a direction from said front portion to said rear portion of said housing (fig. 5).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the connection apparatus of Santomango with a fan as taught by the teachings of Blatti. The motivation would be to cool the components if the devices were to be enclosed in a more substantial housing.

*Allowable Subject Matter*

10. Claims 2, 10, 13-16 and, 20-25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: In combination the lock mechanism or the second unit slidable in a second direction opposite from the first direction of the first unit.

*Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wilson et al, Lambrecht, Ohanian and, Caillat all teach connectors that slidably receive edges with contacts.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Zarroli  
Primary Examiner  
Art Unit 2839

MCZ  
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